

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Original) A substrate structure, comprising: a substrate; a solder mask formed over the substrate; and a metal trace structure formed within the solder mask; the metal trace structure including a channel therein for the receipt of underfill; the metal trace structure further including a central portion with arms radiating outwardly therefrom, dividing the solder mask into separate areas.
2. (Original) The structure of claim 1, wherein the arms each include a distal end.
3. (Original) The structure of claim 1, wherein the solder mask includes a series of solder bumps.
4. (Original) The structure of claim 1, wherein the solder mask includes a series of solder bumps not over the metal trace structure.
5. (Original) The structure of claim 1, wherein the metal trace structure is a cross shape or an X-shape.
6. (Original) The structure of claim 1, wherein the metal trace structure is a cross shape.
7. (Original) The structure of claim 1, wherein the arms each include a distal end wherein the distal ends of the respective arms receive the underfill.
8. (Original) The structure of claim 1, wherein the arms each include a T-shaped distal end wherein the T-shaped distal ends of the respective arms receive the underfill.
9. (Original) The structure of claim 1, wherein the central portion of the metal trace structure includes a shaft in communication with the channel.

10. (Original) The structure of claim 1, wherein the central portion of the metal trace structure includes a shaft in communication with the channel wherein the shaft receives the underfill.
11. (Original) A substrate structure, comprising: a substrate; a solder mask formed over the substrate; and a metal trace structure formed within the solder mask; the solder mask including a series of solder bumps not over the metal trace structure; the metal trace structure including a channel therein for the receipt of underfill; the metal trace structure further including a central portion with arms radiating outwardly therefrom, dividing the solder mask into separate areas.
12. (Original) The structure of claim 11, wherein the arms each include a distal end.
13. (Original) The structure of claim 11, wherein the metal trace structure is a cross shape or an X-shape.
14. (Original) The structure of claim 11, wherein the metal trace structure is a cross shape.
15. (Original) The structure of claim 11, wherein the arms each include a distal end wherein the distal ends of the respective arms receive the underfill.
16. (Original) The structure of claim 11, wherein the arms each include a T-shaped distal end wherein the T-shaped distal ends of the respective arms receive the underfill.
17. (Original) The structure of claim 11, wherein the central portion of the metal trace structure includes a shaft in communication with the channel.
18. (Original) The structure of claim 11, wherein the central portion of the metal trace structure includes a shaft in communication with the channel wherein the shaft receives the underfill.
- 19-32. (Canceled).